DOCUMENT RESUME

ED 213 426 IR 010 056

AUTHOR Leon, Joel; And Others
TITLE An Innovation for Developing and Evaluating Group Interventions.
PUB DATE Nov 81
NOTE 26p.; Paper presented at the Annual Meeting of the Gerontological Society of America (34th, Toronto, Ontario, Canada, November 8-12, 1981).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adult Education; Audiotape Recordings; *Educational Gerontology; *Evaluation Methods; Human Services; *Interaction Process Analysis; Intervention; *Interviews; Middle Aged Adults; Older Adults; Program Evaluation; *Sensitivity Training
IDENTIFIERS *Coding; Content Coding; Process Coding

ABSTRACT

This report describes a technique developed as part of the As Parents Grow Older (APGO) Project at the University of Michigan Institute of Gerontology which uses audiotape recordings in the analysis and evaluation of group intervention programs such as those designed to aid middle-aged adults in understanding and caring for their aging parents and relatives. The relationship between intervention program design and program evaluation is briefly discussed. Two evaluation methods, content coding (the analysis of audiotapes for information exchanged during group interactions) and process coding (the analysis of group atmosphere and interpersonal behavior during group interactions), are described in detail, and the units of measure and procedures involved in process coding are reviewed. Some possible applications of the two methods of coding are then discussed. Four figures, including examples of content coding and process coding instruments, accompany the text. (JL)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

ED213426

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

1981 The Institute of Gerontology at The University of Michigan

# AN INNOVATION FOR DEVELOPING AND EVALUATING GROUP INTERVENTIONS

JOEL LEON, ALIDA SILVERMAN, CARL I. BRAHCE, and SUSAN ZISKIN

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Joel Leon

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

## ABSTRACT

THE DEVELOPMENT AND EVALUATION OF A MODEL PROGRAM THAT FOCUSES ON CAREGIVERS OF THE AGED HAS LED TO THE PRODUCTION OF AN INNOVATIVE APPROACH FOR STUDYING THE EFFECTIVENESS OF GROUP INTERVENTIONS. BRIDGING RESEARCH AND PRACTICE, THE INNOVATION USES AUDIOTAPE RECORDINGS FOR ANALYZING PATTERNS OF INTERACTIONS, ASSESSING GROUP COHESION, AND DETERMINING FACTUAL CONTENT OF GROUP SESSIONS. USED IN CONJUNCTION WITH PRE, POST AND FOLLOW-UP MEASURES, THE APPROACH SERVES AS BOTH A METHOD FOR EVALUATING THE EFFECTIVENESS OF GROUP INTERVENTIONS AND AS A TOOL FOR THE ONGOING DEVELOPMENT AND REFINEMENT OF SUCH INTERVENTIONS.

THIS PAPER EXAMINES THE METHODOLOGY AS A PROCEDURE FOR LINKING PROCESS TO OUTCOME AND ADVANCING EVALUATION OF GROUP CENTERED PROGRAMS; AS A DEVISE FOR TRAINING AND SUPERVISING GROUP WORKERS; AS A PROCEDURAL VARIATION FOR AVOIDING SOME OF THE METHODOLOGICAL AND ETHICAL DILEMMAS OF USING CONTROL GROUPS IN PRACTICE SETTINGS. IMPLICATIONS FOR APPLICATION OF THIS APPROACH FOR LINKING INTERVENTION TO OUTCOMES ARE DISCUSSED.

Presented at the Annual Scientific Meeting of the GERONTOLOGICAL SOCIETY OF AMERICA (34th)
Toronto, Ontario, Canada, November 8-12, 1981

IR010057

# INTRODUCTION

The As Parents Grow Older model project focused on developing a group intervention program that could effectively provide middle-aged adult caretakers with the emotional support and needed information to more adequately understand and aid their aging parents and relatives. Two approaches were used to monitor and evaluate the impact of the program on group participants: pre-post and follow-up interviews and audio tape-recordings of the group sessions themselves. The present material looks at the approach used to analyze the tape-recorded group sessions.

As an earlier conceived intervention the project sought to capture, into an easy to use 'how to' manual, and effective and replicable program. The development process involved deciding what information should be offered and how best to present it. The pre-post and follow-up interviews allowed measurement of participant change; the analysis of the tape-recordings granted the opportunity to determine how completely session materials were covered and assess the quality of the interpersonal relations within group settings. Together, the interview material and tape-recordings were used to evaluate the effectiveness of the program: allowing the identification of the types of persons and problems appearing most amenable to the intervention; fostering the recognition about what aspects of the program required modification; providing the ability to determine what influence different group atmospheres have on effectuating changes in group participants; and monitoring the capacity of the program to properly instruct group leaders in conducting the intervention.

The analysis of the tape-recordings required two distinct procedures: one called content coding to measure information coverage; the other called process coding to measure group atmosphere and interpersonal behavior both among and between group leaders and participants. In examining these approaches it is important to understand how they fit into the development and evaluation context of the As Parents Grow Older program, and how they might be applied more generally to strategies of program *design and evaluation*.

# PROGRAM DESIGN & EVALUATION:

## CONTENT CODING

For effective development and evaluation of human service programs, intervention and evaluation designs must arise simultaneously, facilitating opportunities for the collection of relevant data and appropriate program modification. The tape coding procedures used in the As Parents Grow Older (A.P.G.O.) project would appear to offer one general strategy for monitoring and evaluation group interventions.

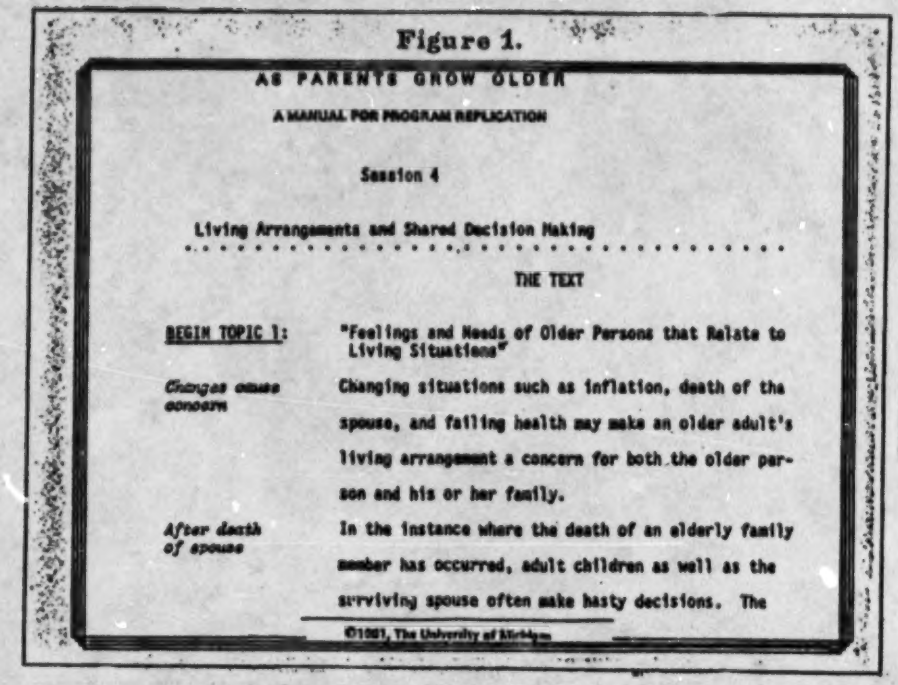
As originally conceived the A.P.G.O. concept included both educational (information giving) and psychotherapeutic aspects. The information side of the intervention required a method of determining how completely desired materials were presented.

At present, the program consists of 6 two-hour group sessions, each devoted to separate topics concerning age related changes and supportive environments:

Psychological aspects of aging;
Chronic illness and behavior change;
Sensory deprivation and communication techniques;
Living arrangements and shared decision making;
Types and availability of local community resources;
Emotional responses of middle age care-providers.

The section of the Manual dealing with session content is divided by session and within each, by relevant issues. For example Session 5, The Types and Availability of Local Community Resources identifies such issues as knowing the functions of different types of services, helping the older person accept and properly utilize available services, etc. Then under each issue area are points of reference (key ideas or pieces of important information) that should be presented by the group leader, as shown in Figure 1., a sample of the Manual's content format.

**Figure 1.**



AS PARENTS GROW OLDER

A MANUAL FOR PROGRAM REPLICATION

Session 4

Living Arrangements and Shared Decision Making

THE TEXT

BEGIN TOPIC 1: "Feelings and Needs of Older Persons that Relate to Living Situations"

*Changes cause concern*

Changing situations such as inflation, death of the spouse, and failing health may make an older adult's living arrangement a concern for both the older person and his or her family.

*After death of spouse*

In the instance where the death of an elderly family member has occurred, adult children as well as the surviving spouse often make hasty decisions. The

©1981, The University of Michigan

This key word format is then utilized in the Content coding procedure which involves listening to the entire group session by a trained coder. The mention of each reference point (or keyword) is listen and coded. The process allows identification of what materials are presented and how completely desired information is covered. Separate Coding Forms have been developed for each session. Figure 2 is an example of the sheet for Session 4 and 5. Listed on the sheets are the reference points (keyword) listed in the margins of the Manual (refer back to Figure 1). The coder is trained to recognize the mention of keywords and thus documents when a piece of information is presented.

In addition to the keywords from the Manual, the coding sheet allows the identification of the types of problems mentioned in the context of session. Here problem issues are listed reflecting the identified problem discussed in the gerontological literature and from problem statements in the pre-test interviews. Open space is available for recording previously unrecognized problems.

THE DUAL FUNCTIONS OF THE CONTENT CODING PROCESS ALLOWS THE MEASUREMENT OF PRESENTED INFORMATION AND THE IDENTIFICATION OF NEW ISSUES OR PROBLEMS. IN THE DEVELOPMENT AND EVALUATION OF THE PROGRAM, CONTENT CODING SERVES BOTH MONITORING AND EVALUATIVE FUNCTIONS.

IN THE DEVELOPMENTAL PHASES OF THE PROGRAM, THE MONITORING CAPACITY OF THE CONTENT CODING PROCEDURE HELPS TO IDENTIFY HOW TO BETTER PRESENT MANUAL MATERIALS TO ENCOURAGE MORE COMPLETE CONTENT COVERAGE AND TO UNCOVER GAPS IN THE PROGRAM CONTENT. FOR EXAMPLE, ONE ISSUE TO SURFACE INVOLVED HOW FAMILY MEMBERS ARE TO DEAL WITH RELATIVES ONCE PLACED INTO A NURSING HOME. THIS STIMULATED THE INCLUSION OF NEW INFORMATION ON THIS SUBJECT.

ALSO DURING THE DEVELOPMENT PHASES OF THE PROJECT THE CONTEST CODING PROCEDURE IN CONJUNCTION WITH THE INTERVIEW MATERIAL ALLOWS A MORE COMPLETE MEANS OF EVALUATING THE PROGRAM'S IMPACT. FOR EXAMPLE THE PRE-POST INTERVIEWS CONTAINED A SHORT QUIZ ON GERONTOLOGICAL FACTS. ONE OF THE OBJECTIVES OF THE A.P.G.O. PROGRAM IS TO INCREASE KNOWLEDGE ABOUT AGING. SINCE THE USE OF 'TRUE' CONTROL GROUPS ARE DIFFICULT TO USE IN PROGRAM EVALUATIONS OF HUMAN SERVICES, ANY SIGNIFICANT POSITIVE INCREASES IN DEMONSTRATED KNOWLEDGE FROM THE PRE TO THE POST TESTS MAY NOT BE THE EXCLUSIVE RESULT OF THE PROGRAM. BUT CONTENT CODING ENABLED THE EXAMINATION OF THE COVARIATION BETWEEN KNOWLEDGE SCORES AND COMPLETENESS OF INFORMATION COVERAGE BY GROUPS. THE CONCLUSIONS ABOUT THE PROGRAM'S INFLUENCE CAN BE ESTABLISHED WITH MORE CERTAINTY, ANALOGOUS TO CONCLUSIONS DRAWN FROM INTERRUPTED TIMED SERIES DATA.

IN A SIMILAR FASHION OTHER DEMONSTRATED CHANGES IN BEHAVIOR CAN BE EXAMINED IN LIGHT OF THE PRESENTATION/NONPRESENTATION OF OTHER SPECIFIC PROGRAM CONTENT, I.E. USE OF A PARTICULAR COMMUNITY RESOURCE, ETC.

RETURNING TO THE MONITORING FUNCTION, GROUP LEADERS AND SUPERVISORY STAFF CAN USE THE CONTENT CODING PROCEDURE TO IDENTIFY ROUTINELY SKIPPED INFORMATION SO THAT GROUP LEADERS CAN STEADILY IMPROVE THE QUALITY OF THEIR PRESENTATION.

WHILE THE CONTENT CODING SHEETS THEMSELVES ARE SPECIFICALLY DEVELOPED FOR THE A.P.G.O. PROGRAM, THE IDEA OF DESIGNING PROGRAMS TO INCORPORATE SOME FORM OF CONTENT CODING WOULD SEEM TO APPLY IN THE DEVELOPMENT AND EVALUATION OF MANY INTERVENTION PROGRAMS, ESPECIALLY THOSE GEARED TOWARD PROVIDING CONCRETE INFORMATION.

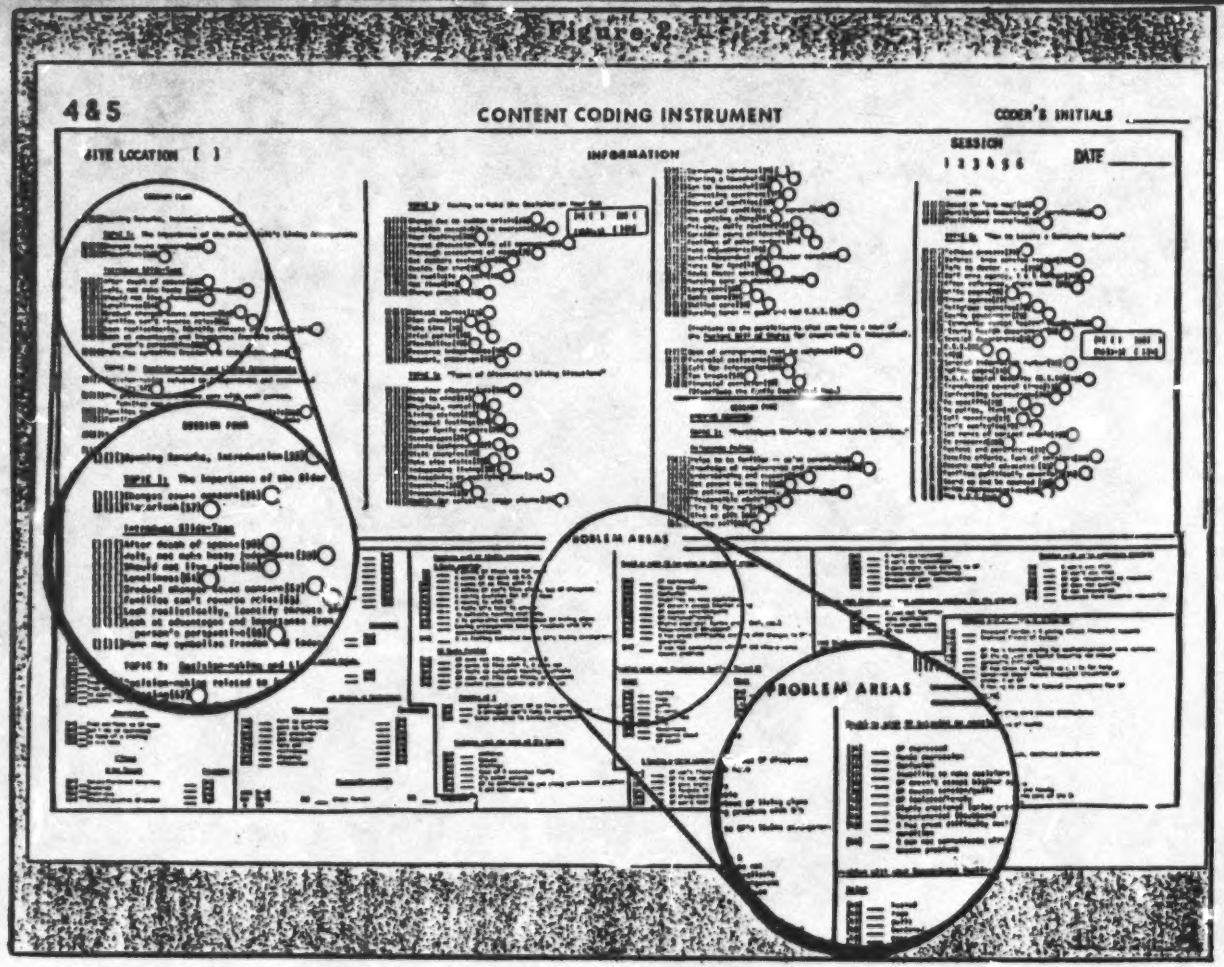
# PROCESS CODING

THERE ARE TWO ESSENTIAL TASKS IN THE TAPE CODING: THE FIRST INVOLVES DETERMINING WHETHER OR NOT INFORMATION IS BEING PRESENTED AND IF ALL RELEVANT PROBLEMS ARE BEING DISCUSSED. THIS FIRST PROCESS HAS BEEN NAMED CONTENT CODING. THE SECOND PROCESS CALLED PROCESS CODING ATTEMPTS TO GATHER DATA THAT CAN BE USED TO MEASURE VARIOUS ASPECTS ABOUT HOW THE GROUP OPERATES. PROCESS CODING IS FAR MORE COMPLEX TO DO THAN CONTENT CODING.

PROCESS CODING IDENTIFIES HOW CAPABLE GROUP LEADERS ARE IN GETTING INDIVIDUAL PARTICIPANTS TO WORK AS A GROUP: TO MUTUALLY EXCHANGE INFORMATION; PROVIDE EMOTIONAL SUPPORT TO EACH OTHER; TO HELP EACH OTHER SOLVE PROBLEMS. IN CONTENT CODING THE UNIT OF MEASURE IS THE OCCURRENCE OF A KEYWORD, A RELATIVELY EASY IDENTIFIABLE UNIT. BUT IN PROCESS CODING THE UNIT OF MEASURE IS AN INCIDENCE OF PARTICULAR FORMS OF INTERPERSONAL VERBAL BEHAVIOR.

IN STUDYING GROUP PROCESS PREVIOUS RESEARCHERS' HAVE ALREADY ESTABLISHED TYPES OF INTERPERSONAL BEHAVIORS THAT INFLUENCE THE QUALITY OF THE GROUP ATMOSPHERE AND THEORETICALLY FACILITATE BEHAVIOR CHANGES AMONG GROUP PARTICIPANTS. THE CURRENT APPROACH DRAWS HEAVILY ON THE WORK OF BALES' (1949) INTERACTIVE PROCESS MEASURES. MORE RECENT WORK IN THIS AREA INCLUDE HILL (1977); THERE ARE SIX CLASSES OF VERBAL BEHAVIORS OF INTEREST AND WITHIN THREE OF THE SIX FINER DISTINCTIONS ARE MADE. (FIGURE 4) PRESENTS A LIST OF THESE BEHAVIORS. EACH TYPE OF BEHAVIOR IS MORE FULLY DEFINED IN THE NEXT SECTION OF THE PRESENTATION. HERE IT IS SUFFICIENT TO POINT OUT THAT THE TYPES OF BEHAVIORS THAT HAVE BEEN IDENTIFIED BY PREVIOUS INVESTIGATORS INVOLVES ONE OF THE FOLLOWING CHARACTERIZATIONS: ASKS: GIVES: IS NEGATIVE: PROPOSES OR SUGGESTS: ESTABLISHES ROUTINES: EXPRESSIONS OF GROUP REACTIONS. SUCH FORMS OF BEHAVIOR HELP OR DISRUPT GROUP FORMATION. IN ADDITION TO WHAT FORMS OF BEHAVIOR ARE MANIFEST, WHO SAYS WHAT TO WHOM IS ALSO OF VITAL IMPORTANCE FOR MEASURING THE QUALITY OF GROUP FORMATION AND PROCESS. SO IN ADDITION TO

Figure 2




IDENTIFYING, CLASSIFYING AND COUNTING THE NUMBER OF OCCURRENCES OF PARTICULAR TYPES OF VERBAL BEHAVIOR, PROCESS CODING ALSO INVOLVES IDENTIFYING BOTH A SPEAKER AND A LISTENER. THIS TO IS DISCUSSED IN MORE DETAIL IN THE NEXT SECTION.

THE PROCESS CODING METHODOLOGY COLLECTS DATA THAT SERVE IN BOTH THE DEVELOPMENT OF THE INTERVENTION AND IN ITS EVALUATION. ANALYSIS OF THE DATA HELPS PINPOINT SHORTCOMINGS IN ASPECTS OF THE MANUAL THAT SPECIFICALLY INSTRUCTS GROUP LEADERS HOW TO EFFECTIVELY USE THE GROUP PROCESS AS PART OF THE INTERVENTION STRATEGY. USED IN CONJUNCTION WITH THE INTERVIEW MATERIALS, THE METHODOLOGY ALSO PERMITS THE IDENTIFICATION OF WHAT COMBINATIONS OF PROBLEMS AND INDIVIDUAL CHARACTERISTICS FORM BETTER WORKING GROUPS. IN ADDITION THE PROCESS CODING METHODOLOGY ALLOWS THE DETERMINATION OF WHAT ASPECTS OF GROUP PROCESS ACTUALLY ENCOURAGE OR INHIBIT BEHAVIORAL CHANGES AMONG GROUP PARTICIPANTS.

# DEFINITIONS & PROCEDURES:

## PROCESS CODING

The unit of measure in Process Coding is defined as an identifiable instance of verbal behavior. An instance of verbal behavior is a unit that can vary greatly in length. It can simply be two words or it could be a lengthy discourse. Also identifiable instances of verbal behavior do not necessarily occur sequentially. If I say something and you respond, that's an example of two identifiable instances of verbal behavior occurring sequentially. But, what if I begin to say something, you briefly interject a comment while I continue to talk. Here, again, two identifiable instances have occurred to yet not sequentially but simultaneously.

The following list presents the classes and categories of verbal behavior of interest (Refer to Figure 4).

1.0 Asking Behaviors

Asking encompasses all those types of behavior that "puts a question to someone." Sometimes questioning is direct, unmistakable --

"Could you tell me what you mean?"

But questions can also be rather indirect. Not all questions sound like questions. They do not contain the usual ending rise in intonation --

"Tell me what you mean,"

is not a question but is a form of asking behavior. Requests, commands, directives are all forms of asking behavior.

"I want to know more about that!"

This sentence is not a question but rather a request.

When a sentence demands or requires a reply, then for our purposes its a type of asking behavior.

Within the asking behavior class there are three specific types of behavior to listen for:

1.1 Asking for expressions of feelings
1.2 Asking for opinions, comments or reactions
1.3 Asking for information, or past experiences

## 2.0 Giving Behavior

The second class of verbal behavior we're interested in involves what we're calling giving behavior. Responses to questions, the making of statement or declarations, giving words of encouragement, relating experiences, providing information or interpretations are all forms of giving behavior. Giving behavior is when one person says something to someone else or to the group as a whole. This class of behavior is very broad and includes most non-questionning forms of verbal communications.

Under the class of "Giving Behavior" there are four distinct categories:

- 2.1 The giving of information
- 2.2 The giving of comments/opinions/feelings
- 2.3 The giving of emotional support or encouragement
- 2.4 The giving of interpretations

## 3.0 Negative Behaviors

This class of verbal behaviors is composed of diverse categories of behavior, all of which hinder or retard the ongoing process of the group. Negative behaviors hold back the group. They inhibit the constructive back and forth exchange of information, feelings, experiences, etc. between the group participants and the group leaders as well as between the participants themselves.

The categories form a hierarchy of problematic behavior running from mildly to severely disruptive. Negative behaviors include expressions of skepticism, disagreement and critical comments. It also includes incidental conversations and large scale arguments.

Under this class of verbal behavior there are three distinct categories:

- 3.1 Disagreements, expressions of skepticism, critical comments
- 3.2 Engaging in incidental conversations
- 3.3 Arguing back and forth

## 4.0 Proposes/Suggests

For this class of behavior there is only one category. This type of behavior occurs whenever one person puts forth a plan or makes suggestions or recommendations about what should be done. The person may be proposing a course of action for himself/herself or proposing it for someone else. Included under proposing/suggesting behaviors are the laying out of details or the sketching in of the particulars of a plan.

The following phrases are commonly associated with proposing/suggesting behavior:

"Why don't you . . .
"You should . . .
"You ought to try . . .
"I might try that myself . . .
"What about trying . . .
"Have you ever considered . . .

As the above examples show, there are three types of word groupings that occur frequently with proposing/suggesting behavior:

1. Directive type words like should, ought, etc.
2. Verbs relating to taking action of some sort, such as trying, doing, attempting, undertaking, making, etc.
3. Direct or indirect objects of verbs, for example:

   "I think <u>you</u> should go . . .

   In this example, you is the object of the verb think.

### 5.0 Routine Behavior

Routine behavior includes all those behaviors that are related to starting or stopping the group sessions and initiating or carrying out any mechanical procedures that occur during group sessions. Such behaviors include calling the group to order so that a session can begin directing the attention of the group to a chart or a handout, introducing the leaders, special speakers, or audio visual materials such as slide presentation, films, etc., asking for quiet, calling a halt to the proceedings, etc.

### 6.0 Group Reactions

Spontaneous verbal reactions by the group or several members of the group are defined as Group Reactions. They are reactions to things that are said by individual members or by the group leaders.

There are no categories under this calss of behaviors. All group responses positive or negative are coded the same. Some examples of group reactions include laughing, exclamations such as spontaneous ah-huhs of uh-huhs, etc. and the group saying yes or no in unison.

By there very nature, these behaviors occur quickly and unexpectedly. They require special attention.

### 7.0 Unidentifiable Segment of Verbal Behavior

Since the excerpts are determined by counternumber it happens that excerpts may contain partial segments of verbal behavior. If the partial segment cannot be classified under one of the other categories than it should be coded as a unidentifiable segment.

## Patterns of Interactions

Process Coding involves identifying who is talking to whom. It is assumed that every occurrence of identifiable verbal behavior has both a speaker and a listener, except for instances of spontaneous group reactions where no listerner is identified. So, in addition to identifying and classifying each occurrence of verbal behavior, it is necessary to specify who is the speaker and to whom is the speaker addressing.

There are five possible speakers/listeners. Each is designated by either a number or a letter.

1 - Represents one leader
2 - Represents the other leader

For each site, leaders one and two are specified at the bottom of the recording instrument, leaders 1 and 2 will be identified by name.

P - Designates ANY individual group member. (While we do distinguish between the group leaders, we are not singling out individual group members).

G - Represents the group as a unit -- the whole group

S - Designates the guest speaker who conducts Session Two, the session on chronic illnesses. These speakers are generally doctors but not always (See Figure 4.).

THE CONVENTION USED TO IDENTIFY WHO IS TALKING TO WHOM IS THE SLASH MARK (/), WHERE THE SPEAKER IS DESIGNATED BY THE LETTER OR NUMBER ABOVE THE SLASH AND THE LISTENER IS BELOW THE MARK, FOR EXAMPLE, P/G. HERE A GROUP PARTICIPANT (P) IS ADDRESSING THE ENTIRE GROUP (G).

WITH FIVE POTENTIAL SPEAKER/LISTERNERS, THERE ARE MANY POSSIBLE PATTERNS OF INTERACTION. SOME COMBINATIONS ARE IMPOSSIBLE. FIRST NO ONE IS ASSUMED TO BE TALKING TO THEMSELVES. PLEASE NOTE HOWEVER, THAT THE P/P COMBINATION IS POSSIBLE SINCE ONE PARTICIPANT COULD ADDRESS ANOTHER PARTICIPANT. SECONDLY, THE GROUP CAN ACT ONLY AS A LISTENER EXCEPT FOR INSTANCES OF GROUP RESPONSES, IN THESE INSTANCES HOWEVER, NO LISTENER IS IDENTIFIED. THE FOLLOWING TABLE SUMMARIZES THE REMAINING POSSIBILITIES (SEE FIGURE 3).

**Figure 3.**

**Speaker/Listener Symbols**

LEADER 1 _____

LEADER 2 _____

P-Individual Participant

G-Group

S-Guest Speaker

**INTERACTION PATTERNS**

| SPEAKER \ LISTENER | 1 | 2 | P | G | S | — |
|---|---|---|---|---|---|---|
| 1 | | 1/2 | 1/P | 1/G | 1/S | |
| 2 | 2/1 | | 2/P | 2/G | 2/S | |
| P | P/1 | P/2 | P/P | P/G | P/S | |
| G | | | | | | G |
| S | S/1 | S/2 | S/P | S/G | | |

## Additional Procedures

Process Coding is very difficult to do. To reduce the complexity, Process Coding is carried out on randomly selected one minute excerpts only, not on the entire session. In total approximately 30 minutes of each session will be coded. This provides us with an adequate amount of material.

Each segment is thought of as a distinct entity. The occurrence of phenomena are coded for each excerpt. Excerpts were selected by tape recorder counter numbers. Therefore, excerpts sometimes begin or end in the middle of someone speaking. If you have heard enough of a statement so you can classify it, do it, otherwise the item is classified as an unidentified partial.

Each one minute excerpt is listened to three times. The first two times allows the coder to just listen for the occurrences of particular types of verbal behavior and identify the interaction patterns. Then coding is actually done on the third time.

Part of the Process Coding methodology involves coder training. Training tapes and materials are used to insure reliable results. The Process Coding definitions have an intra-coder reliability ranging between .94 and .96. Inter-coder reliability was .97. Coders were trained to a criterion level of .97.

Voice Identification tapes are used to identify the voices of the group leaders.

# THE PROCESS CODING INSTRUMENT

THE PROCESS CODING INSTRUMENT CONTAINS SEVERAL DIFFERENT TYPES OF INFORMATION. THERE IS SPACE FOR IDENTIFYING INFORMATION, SPECIAL KEYS FOR THE SPEAKER/LISTERNEK CATEGORIES AND FOR THE INTERACTION PATTERNS. FINALLY, THERE IS SPACE FOR CODING THE OCCURRENCE OF EACH TYPE OF VERBAL BEHAVIOR. (REFER TO FIGURE 4).

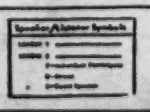
THE IDENTIFYING INFORMATION IS SIMILIAR TO THE INFORMATION COLLECTED ON THE CCI. SITE LOCATION, SESSION NUMBER, CODER INITIALS, PLUS SPACE TO SPECIFY THE NAMES OF THE LEADERS, DESIGNATED AS LEADER 1 AND 2.

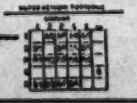
EACH EXCERPT IS CODED WITHIN ITS OWN SECTION ON THE FORM. AFTER IDENTIFYING THE CATEGORY OF VERBAL BEHAVIOR THE INTERACTION PATTERN IS PLACED IN THE APPROPRIATE COLUMNS.

**Figure 4.**

SITE LOCATION [ ] PROCESS CODING INSTRUMENT SESSION 1 2 3 4 5 6 CODER'S INITIALS _____ DATE _____

| CLASS OF VERBAL BEHAVIOR | CATEGORY OF BEHAVIOR | NUMBER OF OCCURRENCES BY INTERACTION PATTERN WITHIN EACH EXCERPT |
|---|---|---|
| ASKING BEHAVIOR | 1.1 EXPRESSIONS OF FEELINGS | |
| | 1.2 OPINONS/COMMENTS/REACTIONS | |
| | 1.3 INFORMATION/PAST-PRESENT EXPERIENCES | |
| GIVING BEHAVIOR | 2.1 INFORMATION/ILLUSTRATIONS | |
| | 2.2 COMMENTS/OPINIONS/REACTIONS & PAST-PRESENT EXPERIENCES & FEELINGS | |
| | 2.3 SUPPORT/ENCOURAGEMENT/PRAISE ENDORCEMENTS/ACKNOWLEDGEMENTS | |
| | 2.4 INTERPRETATIONS OR ANALYSES OF BEHAVIORS, FEELINGS, EXPERIENCES | |
| NEGATIVE BEHAVIOR | 3.1 DISAGREES/IMPLIES ERROR/SKEPTICISM | |
| | 3.2 ENGAGES IN INCIDENTAL CONVERSATION | |
| | 3.3 ARGUES BACK AND FORTH | |
| PROPOSING/SUGGESTING BEHAVIOR | 4.1 OFFERING CONCRETE COURSE OF ACTION/ADVISE | |
| ROUTINE BEHAVIOR | 5.1 MECHANICAL/PROCEDURAL BEHAVIORS | |
| GROUP REACTIONS | 6.1 SPONTANEOUS GROUP RESPONSE | |
| UNIDENTIFIABLE SEGMENTS | 7.1 PARTIAL/INCOMPLETE BEHAVIORS | |





# POSSIBLE APPLICATIONS

The entire Tape Coding Methodology is not immediately transferable to other contexts. The Content Coding is specifically designed for use with the A.P.G.O. program, but the idea for using keyword analysis has broad potential. The second procedure, Process Coding, in its present form, is immediately applicable for any group intervention where group process is important. Computer program for the Process Coding has been accomplished and could be made available for use in any system capable of using M.I.D.A.S. computer packaging.

The application of tape coding, as discussed, could be used for the development and evaluation of group interventions and group practioner training. The Process Coding could also be used in more basic research on group process. In fact a good idea would be to test its validity with other available, but more complex, group recording techniques such as Bales' original system, the Hill Interaction Matrex, HIM (Hill, 1977) and the Social Information Processing Analysis, SIPA, system (Fischer, et al 1979).

From our pre testing of the system, the availability of the computer program and coder training module, the entire Process Coding system appear readily transferable to other situations and for additional testing.

In its present form the Tape Coding precedures, with slight modifications to Content Coding, offers a relatively simple and inexpensive technique for developing and evaluating group intervention programs and for use in basic research on group process.

# SUMMARY

THIS PRESENTATION HAS BEEN AN INTRODUCTION TO A NEW TECHNIQUE FOR USING AUDIO TAPE RECORDINGS IN THE DEVELOPMENT AND EVALUATION OF GROUP INTERVENTIONS. BASICALLY THERE ARE TWO SEPARATE PROCEDURES, ONE FOR ASSESSING CONTENT; THE OTHER FOR MEASURING GROUP BEHAVIOR.

WHILE THE PRESENT CONTENT CODING METHOD ONLY SERVES AS AN EXAMPLE OF HOW THE PRESENTATION OF INFORMATION CAN BE EVALUATED, THE SECOND PROCEDURE, PROCESS CODING, IS READY FOR IMMEDIATE USE IN OTHER CONTEXTS. HOPEFULLY, ADDITIONAL WORK WITH THE PROCESS CODING SYSTEM WILL BE TESTED AGAINST PREVIOUSLY ESTABLISHED SYSTEMS OF GROUP PROCESS ANALYSIS.

---

## REFERENCES

Fisher, B.A., Drecksel, G.L., and Werbel, W.S.
1979 "Social Information Processing Analysis (SIPA): Coding Ongoing Human Communication," SMALL GROUP BEHAVIOR, Vol. 10, No. 1: pp. 3-21.

Hill, Wm. Fawcett.
1977 "Hill Interaction Matrix (HIM): The Conceptual Framework, Derived Rating Scales, and an Updated Bibliography," SMALL GROUP BEHAVIOR, Vol. 8, No. 3, (August): pp. 251-267.